## **Amendments to the Specification**:

*On page 1, after the title, insert the following:*

CROSS-REFERENCE TO RELATED APPLICATION

This application is the U.S. national phase of PCT Appln. No. PCT/EP2005/003960 filed April 14, 2005, which claims priority to German application 10 2004 018 283.3 filed April 15, 2004.

BACKGROUND OF THE INVENTION

1. Field of the Invention

*Please amend the paragraph on page 1, line 4, as shown below:*

The invention relates to a process for the continuous preparation of aqueous silicone emulsions, the process being regulated by means of the pressures and temperatures[[,]] ~~which are~~ measured directly after the mixers.

*On page 1, before the paragraph beginning on line 10, please add the following:*

2. Description of the Related Art

*Please amend the paragraph on page 1, line 10, as shown below:*

Silicone emulsions are commercially available as milky white macroemulsions in the form of w/o or o/w emulsions and as opaque to transparent microemulsions. They are mixtures of at least one water-insoluble silicone oil, resin or elastomer, at least one emulsifier and water. For the preparation of the emulsion, these components are mixed with one another and dispersed with the use of, for example, heat and cold, <u>and</u> mechanical shearing, which can be produced

by means of narrow gaps in mixers.

*Please amend the paragraph on page 1, line 37, as shown below:*

In the preparation of silicone emulsions using shearing, typically the silicone is first mixed with at least one emulsifier and a small amount of water and exposed to high shearing, for example in a rotor-stator mixer having narrow gaps. Typically, a w/o emulsion having a very high viscosity, which is referred to as a so-called "stiff phase", forms. The viscosity of this stiff phase is very dependent on the shearing. This stiff phase is then slowly diluted with water up to the inversion point. At the inversion point, the w/o emulsion becomes an o/w emulsion. The formation of this stiff phase and the method of dilution with water to the desired final concentration of the emulsion determine the quality of the emulsion. Quality of the emulsion is to be understood as meaning in particular the particle size, the ~~distribution of the~~ particle size distribution, the storage stability, and the tolerance of the emulsion to heating and/or cooling, vibrations, change of pH, change of salt content, etc.

*On page 3, before line 8, please insert the following heading:*

SUMMARY OF THE INVENTION

*Please amend the paragraph on page 3, line 8, as shown below:*

The invention relates to a process for the continuous preparation of aqueous emulsions which comprise organosilicon compound (A), emulsifier (B) and water (C), in which in each case a part of the components organosilicon compound (A), emulsifier (B) and water (C) is fed continuously to a first high-shear mixer in which a highly viscous phase of a silicone emulsion is formed,

and, in a second high-shear mixer, further components which are selected from organosilicon compound (A), emulsifier (B) and water (C) are admixed,

the process being regulated by means of the pressures and temperatures~~, which are~~ measured directly after the respective mixers.

*On page 3, after line 21, please insert the following heading and paragraph:*

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 illustrates one embodiment of the inventive process in schematic form.

*On page 3, before line 23, please insert the following heading:*

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

*Please amend the paragraph on page 3, line 23, as shown below:*

It was found that the pressure and the temperature after the high-shear mixers are determinative for the quality of [[the]] emulsions of organosilicon compounds, and the quality of the emulsions prepared can be substantially improved by [[the]] regulation. The regulation leads<u>,</u> in the case of microemulsions<u>,</u> to clearer products having small particle sizes. In the case of macroemulsions, substantially smaller particle sizes and improved storage and dilution stabilities are achieved. With [[the]] temperature control, control of the particle sizes is possible. This effect is supported by [[the]] pressure regulation.

*Please amend the paragraph on page 4, line 24, as shown below:*

In the first high-shear mixer, preferably at least 50, <u>more</u> preferably at least 70[[,]] % by weight of the organosilicon compound (A) are admixed. In the first high-shear mixer, preferably at least 60, <u>more</u> preferably at least 80[[,]] % by weight of the emulsifier (B) are admixed.

*Please amend the paragraph on page 4, line 30, as shown below:*

In the process, organosilicon compound (A), emulsifier (B) and water (C) are fed to the first high-shear mixer, for example by means of continuously delivering pumps, such as centrifugal pumps, shear pumps, rotary piston pumps or rotating spindle pumps. For some emulsions, it may be advantageous to feed a mixture of emulsifier (B) and water (C) to the first high-shear mixer itself. For this purpose, a further high-shear mixer can be arranged before the first high-shear mixer. Furthermore, ~~further~~ additional mixers, preferably one or two mixers, can dilute and completely compound the emulsion after the second high-shear mixer.

*Please amend the paragraph on page 5, line 33, as shown below:*

The emulsions prepared according to the invention have a content of at least 1% to 98%, preferably from 5% to 90%, particularly preferably from 9 to 80%, of organosilicon compound (A). The particle sizes vary from 1 nm to 1000 μm, preferably from 5 nm to 300 μm, ~~particularly~~ more preferably from 10 nm to 200 μm. The pH may vary from 1 to 14, preferably from 2 to 10, ~~particularly~~ more preferably from 3 to 9.

*Please amend the paragraph on page 6, line 4, as shown below:*

Organosilicon compound (A) is preferably liquid at 25°C and preferably has a viscosity ~~viscosities~~ of from 0.5 to ~~500 000~~ 500,000 mPa·s, in particular from 2 to ~~80 000~~ 80,000 mPa·s.

*Please amend the paragraph on page 16, line 8, as shown below:*

It is well known in the area of emulsifiers, the ~~opposition~~ counter ions in the case of anionic emulsifiers can be alkali metals, ammonia or substituted amines, such as trimethylamine or triethanolamine. Usually, ammonium, sodium and potassium ions are preferred. In the case of cationic emulsifiers, the ~~opposition~~ counter ion is a halide, sulfate or methylsulfate. Chlorides are the most industrially available compounds.

*Please amend the paragraph on page 17, line 20, as shown below:*

Emulsifiers (B) are used in amounts of, preferably, from 0.1 to 60% by weight, ~~particularly~~ <u>more</u> preferably from 1 to 30% by weight, based in each case on the total weight of organosilicon compounds (A).

*Please amend the paragraph on page 17, line 31, as shown below:*

~~Examples of silanes are vinyltris(methoxyethoxy)silane, tetraethoxysilane, anhydrolyzed tetraethoxysilane, methyltriethoxysilane, anhydrolyzed methyltriethoxysilane, aminoethylaminopropyltrimethoxysilane, aminoethylaminopropyl(methyl)dimethoxysilane.~~
<u>Examples of silanes are vinyltris(methoxyethoxy)silane, tetraethoxysilane, anhydrolyzed tetraethoxysilane, methyltriethoxysilane, anhydrolyzed methyltriethoxysilane, aminoethylaminopropyltrimethoxysilane, aminoethylaminopropyl(methyl)dimethoxysilane.</u>

*Please amend the paragraph on page 18, line 1, as shown below:*

The process is ~~explained~~ <u>illustrated</u> by way of <u>an</u> example with reference to figure 1. At least one emulsifier (B) or a solution of an emulsifier (B) and optionally water (C), optionally one or more organosilicon compounds (A) and additives (Z) are metered continuously through the feed pipes A, B, C and D into the feed pipe 1. A static mixing element can optionally be installed in the feed pipe 1 for improving the mixing of the components before the first high-shear mixer 2. After the first mixer 2, a stiff phase is produced. After the mixer 2, a temperature sensor 3 and a pressure sensor 4 are installed in the pipe 5. The specified temperature and the specified pressure in the pipe 5 are fixed by the pressure control valve 22 and the speed of the high-shear mixer 2. The temperature is regulated by the temperature of the raw materials, which are thermostatted according to specifications, and by the speed of the mixer. One or more emulsifiers (B), one or more organosilicon compounds (A), water (C) and additives (Z) can be introduced, once again continuously, into the feed pipe 5. The mixture or

solid phase can also be transferred without metering into the second high-shear mixer 6. The temperature after mixer 6 is measured by the temperature sensor 7 and regulated by means of the temperature of the raw materials and the speed of the mixer 6. The pressure after mixer 6 is measured by the pressure sensor 8 and regulated by means of the pressure control valve 22 and the speed of the mixer 6. After the mixer 6, one or more emulsifiers (B), one or more organosilicon compounds (A), water (C) and additives (Z) can once again be metered. Thereafter, the product in pipe 24 can be passed via an optionally present valve 9 and an optionally present pipe 10 to the mixer 13 or fed further in pipe 24 via an optionally present valve 17 to the high-shear mixer 18. Here too, raw materials can be metered before mixer 13. The temperatures and the pressures after mixer 13 and mixer 18 are measured as described above by the temperature regulators 14 and 19 and the pressure sensors 15 and 20 and regulated as described above. If the path of a product via pipe 10 is not used, pre-mixes or pre-emulsions can be prepared in the mixer 13 in the manner described and can be fed to the product before mixer 18. The temperature and pressure regulation takes place analogously. After mixer 18, further emulsifiers (B), organosilicon compounds (A), water (C) and additives (Z) can be added. Furthermore, it is possible to dilute the emulsion further with water after the pressure control valve 22 before the final product is filled into a tank or a sales container.

*Please amend the paragraph on page 22, line 6, as shown below:*

In the process carried out according to the invention 3 bar and 26°C are measured after mixer 2. 2 bar and 37°C are reached after mixer 6 and 27°C after mixer 18. This leads to a finely divided silicone emulsion (150 nm) having an oil viscosity of ~~100 000~~ 100,000 mPa·s. The storage stability of the emulsion is more than 2 years.

*Please amend the paragraph on page 22, line 18, as shown below:*

**Comparative example 3b**

If, in the process not according to the invention, all parameters are left unchanged and the temperature of the polydimethylsiloxane is kept at 25°C, the result is an emulsion which has a comparative particle size (154 nm) but only an oil viscosity of ~~60 000~~ 60,000 mPa·s, which is too low.